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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,270	02/17/2004	Michael S. Bender	5681-76100	2233

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MHKKG/Oracle (Sun)
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EXAMINER

FARROKH, HASHEM

ART UNIT	PAPER NUMBER
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2187

NOTIFICATION DATE	DELIVERY MODE
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11/26/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/780,270	Applicant(s) BENDER ET AL.	
	Examiner HASHEM FARROKH	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/27/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/17/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/27/2010 has been entered.

The instant application is in response to communication filed on 09/27/2010. There are a total of 21 claims pending in the application; Claims 1, 8, 15, and 19-21 have been amended; no claims have been added or canceled.

INFORMATION CONCERNING CLAIMS:

Claim Rejections - 35 USC § 112

1. *Claim 1-21 are rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, for example, recites the limitation: "a stateless client that, during operation, communicates with said server". It appears that specification does not support the limitation as recited, for more detail see the response to the Remarks described below. The independent claims 8 and 15 recite similar limitations (e.g., intended use). It appears that specification support the initial language of claims (e.g., configured, accessible, etc.). The dependent claims 2-7, 9-14, and 16-21*

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are rejected because they are directly or indirectly depend from their respective independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,103,760 B1 to Billington et al. (hereinafter Billington) in view of U.S. Patent No. 2005/0160150 A1 to Kao and U.S. Patent Pub. No. 2005/0102377 A1 to King et al. used as documentary evidence. King et al. defines that a thin client is a stateless client (e.g., see paragraph 0010 of King et al.).

2. *In regard to claim 1 Billington teaches:*

*“A system (**e.g., Fig. 11**), comprising:”*

*“a stateless client that lacks an operating system, wherein (**e.g., Thin Client Device 12 in Fig. 11**), during operation, the stateless client communicates with a server (**e.g., see column 5, lines 51-57; column 13, lines 19-29; Fig. 11; transmission-enabling contact**), such that during use, a user interacts with an application that executes on the server by interacting with the stateless client;” (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11**). For example Billington teaches various application of system 10 shown in Fig. 11. The system shows that thin client 12 communicates with*

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processor 14 comprising a server via wire/wireless lines. Some examples of the applications using thin client is web radio and TV.

*“a mass storage device locally coupled to said stateless client (**e.g., paragraph 13, line 47; Data Storage Drive 80 in Fig. 11**), wherein during operation, said mass storage device is accessed by said user via said server,” (**e.g., see column 13, lines 19-31 and lines 57-57-63; Fig. 11**). Fig 11 shows that mass storage device 80 is locally connected to the thin client 12. The server coupled to the thin client device. The mass storage device is accessible by users via processor 14 that comprises a server.*

*“wherein during operation, said server stores data to said mass storage device via said stateless client in response to said user’s interaction with said application.” (**e.g., see column 3, lines 41-50; column 13, line 64 to column 14, line 7; Fig. 11**). Billington does not explicitly spell out to store the data to data storage device 80. However, it is inherently clear that the users of the thin clients use the resources provided by processor/server 14 comprising various peripheral devices including the data storage device 80. The processor 14 uses peripheral devices including the data storage device 80. Thin client enables the processor or server and peripheral devices to transmit data. The data transmission between the processor or server and the storage device comprises reading/writing data from/to peripheral device(s) comprising the data storage device. However, Billington does not expressly teach: “and wherein the stateless client does not locally execute applications that accesses mass storage device;”*

*Kao teaches: “and wherein the stateless client does not locally execute applications that accesses mass storage device;” (**e.g., paragraph 0013; Fig. 3**) for*

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executing the client software including operating system (O/S) on terminal server on behalf of each thin client.

Disclosures by Billington and Kao are analogous because both references are in the same field endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the embedded electronic device connectivity system taught by Billington to execute software including operating system (O/S) on behalf of each thin client on the server.

The motivation for executing the software including O/S on behalf of each client on server as taught by paragraph 0014 of Kao is the reduction of administrative costs.

Therefore, it would have been obvious to combine teaching of Kao with Billington to obtain the invention as specified in the claim.

3. *In regard to claims 2 and 9 Billington further teaches:*

“wherein said storage device is locally coupled to said stateless client via a Universal Serial Bus (USB) or IEEE 1394 interface.” (e.g., see column 10, lines 17-20).

4. *In regard to claims 3 and 10 Billington teaches:*

“wherein said storage device is a mass storage device employing magnetic media, optical media, or solid-state storage devices.” (e.g., see column 8, lines 37). For example the hard disk comprises is a mass storage device that employing magnetic media.

5. *In regard to claim 8 Billington teaches:*

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“A method comprising: a user interacting with an application that executes on a server, wherein the user interacts with the application via a stateless that communicates with said server;” **(e.g., see column 5, lines 51-57; column 13, line 19 to column 16, line 16).**

“said user accessing a mass storage device via said server **(e.g., see column 13, lines 19-31; Fig. 11)**, wherein said storage device is locally coupled to said stateless client.” **(e.g., Mass Storage Device 80 in Fig. 11).**

“and wherein the stateless client does not locally execute user applications that access the mass storage device; and”

“said mass storage device storing data, said data being received from said server via said stateless client in response to said user’s interaction with said application.” **(e.g., see column 3, lines 41-50; column 13, line 64 to column 14, line 7; Fig. 11).**

Claims 4-5 and 11-12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of Kao as applied to claim 1 above, and further in view of U.S. Patent Publication No. 2003/0014587 A1 to Bouvier et al. (hereinafter Bouvier).

6. *In regard to claim 4 Billington in view of Kao teach all limitations included in claim 1 but does not expressly teach: “wherein during operation, the server detects a hotplugging event generated in response to disconnection of the mass storage device.”*

Bouvier teaches: “wherein during operation, the server detects a hotplugging event generated in response to disconnection of the mass storage device.” (e.g., paragraphs 0032 and 0042) for using storage detection sensor to detect the installation/removal including “hot plugged” disk drive(s).

Disclosures by Billington, Kao, and Bouvier are analogous because all references are in the same field endeavor (e.g. storage devices).

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the Embedded electronic device connectivity system taught by Billington to execute the software including operating system (O/S) on behalf of each thin client on the server; furthermore, to include the storage detection sensor for detecting installation/removal and “hot plugged” disk drive taught by Bouvier.

The motivation for executing the software including O/S on behalf of each client on server as taught by paragraph 0014 of Kao is the reduction of administrative costs; the motivation for using storage detection sensor as taught by paragraph 0037 of Bouvier is to provide enhanced monitoring capabilities.

Therefore, it would have been obvious to combine teaching of Bouvier and Kao with Billington to obtain the invention as specified in the claim.

7. *In regard to claim 5 Bouvier further teaches:*

“wherein in response to detecting the hotplugging event, the server marks resources associated with the mass storage device as deleted or stale (e.g., paragraph 0031; bits in status register), such that disconnection of the mass storage device is visible to

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the application.” **(e.g., paragraphs 0032 and 0042; notify the initiator).** *The motivation for combining is based on the same rational given for rejection of claim 4.*

8. *In regard to claim 11 Billington teaches that storage device connected to thin client but does not expressly teach: “disconnecting the mass storage device”*

Bouvier teaches: “disconnecting the mass storage device” (e.g., paragraph 0032; removal of a drive).

9. *Claim 12 recites similar limitation(s) as claim 5 and are rejected on the same ground of rejection.*

Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of Kao as applied to claim 1 above, and further in view of U.S. Patent Publication No. 2004/0064461 A1 to Pooni et al. (hereinafter Pooni).

10. *In regard to claims 6 and 13 Billington in view of Kao teach all limitations included in the base claims but do not expressly teach: “wherein said server is further configured to provide a kernel execution mode and a user execution mode, and wherein said server is further configured to execute a storage service daemon, wherein said storage service daemon executes in user execution mode.”*

Pooni teaches: “wherein said server is further configured to provide a kernel execution mode and a user execution mode (e.g., see paragraph 52 in page 5), and wherein said server is further configured to execute a storage service daemon (e.g., see paragraph 52 in page 5), wherein said storage service daemon executes in user

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execution mode.” **(E.g., see paragraph 39 in page 4)** for executing storage service (e.g., SCSI subsystem) daemon in user mode.

Disclosures by Billington, Kao, and Pooni are analogous because all references are in the same field of endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify Embedded electronic device connectivity system taught by Billington to execute software including operating system (O/S) on behalf of each thin client on the server taught by Kao; furthermore, to include the kernel mode and user mode taught by Pooni. The motivation for executing the software including O/S on behalf of each client on server as taught by paragraph 0014 of Kao is the reduction of administrative costs; the motivation for executing storage service daemon in user mode as taught by paragraph 33, page 3 of Pooni is a method and arrangement for dynamically detecting one or more SCSI devices on a Linux host, thus improving the method existed in prior art (see background of invention).

Therefore, it would have been obvious to combine disclosures by Pooni and Kao with Billington to obtain the invention as specified in the claim.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of Kao as applied to claim 1 above, and further in view of U.S. Patent Publication No. 2003/0056063 A1 to Hochmuth et al. (hereinafter Hochmuth).

11. *In regard to claims 7 and 14 Billington in view of Kao teach all limitations included in the base claims but does not expressly teach: “wherein said storage device*

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comprises one or more unit interfaces, wherein each unit interface comprises one or more logical units (LUNs), and wherein each logical unit comprises one or more partitions.”

Hochmuth teaches: “wherein said storage device comprises one or more unit interfaces (e.g., paragraph 30 in pages 4 to 5), wherein each unit interface comprises one or more logical units (LUNs) (e.g., paragraph 30 in pages 4 to 5), and wherein each logical unit comprises one or more partitions.” (e.g., paragraph 14 in page 2) for partitioning the logical storage units.

Disclosures by Billington, Kao, and Hochmuth are analogous because all references are in the same field of endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify Embedded electronic device connectivity system taught by Billington to execute software including operating system (O/S) on behalf of each thin client on the server taught by Kao; furthermore, to include the storage device with logical storage units partitioning taught by Hochmuth.

The motivation for executing the software including O/S on behalf of each client on server as taught by paragraph 0014 of Kao is the reduction of administrative costs; the motivation for including the logical storage partitioning as taught by paragraph 9, page 1 of Hochmuth is to provide a secure storage access configuration module.

Therefore, it would have been obvious to combine disclosures by Hochmuth and Kao with Billington to obtain the invention as specified in the claim.

Allowable subject matter

Claims 15-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Remarks

Applicant's Remarks are fully considered but they are not persuasive.

The Examiner has rejected the claims 1-21 under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. In the Office Action mailed 06/25/2010, the Examiner stated:

“The Applicant amendment of claims and argument are in response to the decision by Board of Patent Appeal and Interferences (hereinafter Board) that modified the original decision, but still confirming the Examiner rejections. The modification of the original decision, apparently created a new ground of rejection [e.g., see Decision on Reconsideration - Granted (APD2) dated 03/10/2010). The original claims (e.g., before appeal) recites that stateless client is **configured** to provide certain functions. Board has stated that languages of claim are recitation of intended use and as such Billington anticipates the limitations recited in the independent claims 1, 8, and 15. The Applicant, although not agreeing with the Board decision, has amended the claims to overcome the rejections (e.g., see pages 7-8 of Remarks). However, Applicant has not provided information as to what portion of the specification provides support for the new amendment. For example claim 1 before the appeal recites “a stateless client configured to communicate with said server”, after the appeal claim 1 has been amended the claim to recite “a stateless client that, during operation, communicates with said server. The paragraphs 0019 and 0023 of specification, respectively, in part recite: “a plurality of stateless clients 10a and 10b **configured to communicate** with a plurality of server systems 20a and 20b via a network 15.” and “stateless clients 10 may be **configured to communicate** with servers 20 via network 15.” It appears that specification support the language of original claims but not the newly amended versions.”

The Examiner has clearly has stated and given reason as to why the claims are being rejected under 35 USC § 112, first paragraph. However, the Applicant states the

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Examiner has not provided reason for rejection (see page 8-12 of Remarks). The Applicant continues to argue that, for example, configured to communicate is the same as actually communicating. On page 10 of Remarks, the Applicant states:

*"In this instance, one of ordinary skill in the art would clearly recognize that when the specification describes what an entity is "configured to" do, it necessarily describes what that entity actually does when it is operating, on at least some occasions. According to the *Merriam-Webster Online Dictionary*, the ordinary meaning of "configure" is "to set up for operation especially in a particular way." (emphasis added). That is, to describe how something is configured is to describe its structure in terms of what it is capable of doing.*

It is difficult to imagine that one of ordinary skill in the art would understand that (a) a disclosure describes that an entity is capable of doing something, and yet conclude from the same disclosure that (b) the entity never actually does anything. But this is precisely what the Office would have to establish in order to support its contention that one of ordinary skill would not understand a disclosure that X is "configured to" do Y to also entail that X, during operation, does Y."

The Examiner respectfully disagrees. An entity is configured to do something does not mean that is necessarily doing it. It means is cable to do it. The entity may or may not do the function configured or capable to do. For example, a computer or a client device is configured is capable to access, or to communicate with a server on the internet. The user may or may not use the computer to access the internet. In addition, a simple question is that if the Applicant believe that configuring to do something is the same as doing it, then why the amendment. The fact is that, as Board has stated, statements such as "configured to communicate" is the intended use.

In regard to the prior art rejections the Applicant has amended the independent claims 1 and 8 to recite the additional limitation(s): "stateless client lacks operating system and server, and that the stateless client does not locally execute applications that access the mass storage device". Although, Examiner believes Billington inherently teach the

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limitation(s), Examiner has chosen a secondary prior art reference (e.g., Kao) that expressly teaches the newly added limitation. The combination of Billington and Kao references teach all limitations recites in the independent claims 1 and 8.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASHEM FARROKH whose telephone number is (571)272-4193. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin L. Ellis can be reached on (571)272-4205. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/HASHEM FARROKH/
Examiner, Art Unit 2187*